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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/597,179

07/14/2006

Bruno Korneel Rene Tourwe

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS

P.O. BOX 3001

BRIARCLIFF MANOR, NY 10510

EXAMINER

FAULK, DEVONA E

ART UNIT

PAPER NUMBER

2614

MAIL DATE

DELIVERY MODE

02/18/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary**Application No.**

10/597,179

Applicant(s)TOURWE, BRUNO KORNEEL
RENE**Examiner**

DEVONA E. FAULK

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1 and 3-10 is/are allowed.
- 6) ☒ Claim(s) 12 and 13 is/are rejected.
- 7) ☒ Claim(s) 11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 June 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Claims 2-4,8 and 14 were objected to as being dependent upon a rejected based claim but indicated as allowable if rewritten in independent form. The applicant has amended claims 1 and 11 with language previous recited in claim 2 and claim 12 with language previously recited in claim 14.
2. The indicated allowability of claim 14 is withdrawn in view of the newly discovered reference(s) Agari. Rejections based on the newly cited reference(s) follow.
3. Claims 2,14-16 are cancelled.

Claim Objections

4. Claim 11 is objected to because of the following informalities: Claim 11 recites “a digital audio signal processor comprising.....a sensor for measuring background noise”. The DSP 2 (Figure 2) does not include the sensor. Appropriate correction is required.

Claim Rejections - 35 USC § 101

Claim(s) **12** is/are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. Supreme Court precedent¹ and recent Federal Circuit decisions² indicate that a statutory “process” under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing.

¹ *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).

² *In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. 2008).

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While the instant claim(s) recite a series of steps or acts to be performed, the claim(s) neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process. The limitations in claim 12 are not tied to another statutory category and can be manually implemented.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hashemian (US 2003/0216879) in view of Saito et al. (US 5,200,709) in further view of Agari (JP 03-046897) .

Regarding claim 12 , Hashemian discloses a method for processing digital sound signals (Figure 5) wherein frequency components below a HP cut-off frequency are removed prior to amplification, and after amplification, frequency components above a LP cut-off frequency are removed, (Figure 5; HP filter 504, amplifier 508, low-pass filter 512; page 4, ¶ 0047).

Hashemian fails to teach of a matcher for matching the high pass frequency and low pass frequency of the high pass filter and low pass filter respectively to each other. The concept of frequency matching is well known in the art as taught by Saito. Saito

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discloses frequency matching (abstract; column 7, lines 35-39) . It would have been obvious to modify Hashemian to match the frequencies of the high and low pass filters for the benefit of maintaining a flat frequency response at the output and so that there will be less distortion.

Hashemian as modified teaches of a sensor signal that has a noise component (page 4, ¶ 0047). Hashemian fails to disclose wherein a noise level is measured and the HP cut-off frequency f is determined in dependence on the measured noise level.

Prior art Agari teaches of a high pass filter whose cut-off frequency is determined in dependence on a measure noise level (See abstract). It would have been obvious to modify Hashemian as modified in order to effectively reduce noise.

7. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hashemian (US 2003/0216879) in view of Saito et al. (US 5,200,709) in view of Agari (JP 03-046897) in further view of Takagi et al. (US 5,018,205) .

Regarding claim 13, Hashemian as modified discloses a cut-off frequency for the high pass filter. Hashemian fails to disclose wherein the HP cut-off frequency lies between 300 Hz and 2 kHz. Takagi discloses wherein the HP cut-off frequency lies between 300Hz and 2 kHz (column 8, lines 63-66). It would have been obvious to modify Hashemian so that the cut-off frequency for the high pass filter lies between 300 Hz and 2kHz for the benefit of obtaining a desired frequency response.

Allowable Subject Matter

8. Claims 1, 3-10 are allowed.

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9. The following is an examiner's statement of reasons for allowance: Regarding claim 1, prior art Menkhoff (US 5,714,918) discloses a sound reproduction system (Figure 6) comprising a digital audio signal input (data input E, Figure 6; column 5, lines 26-32), a digital audio signal processor (digital signal processor is comprised of hp1, tp1, hp2, tp2, mh1, mt1, mh2, mt2 Figure 6) and a digital audio signal output (output from adder ad1, Figure 6) wherein the digital signal processor comprises a high pass filter (hp1, Figure 6; column, lines 25-37) with a high pass frequency, an amplifier (mh1, Figure 6) for a signal filtered by the HP filter, and a low pass filter (tp2, Figure 6; column, lines 25-37) with a low pass frequency (for filtering the signal after amplification by the amplifier (mh1, Figure 6) and for providing an output signal, and the digital processor comprises an establisher for establishing the high pass frequency or the low pass frequency (Menkhoff discloses that the frequencies of the high and low pass filters can be arbitrarily preset; column 3, lines 54-59; establisher is implicit).. Prior art Saito et al. (US 5,200,709) discloses frequency matching (abstract; column 7, lines 35-39). Prior art Agari teaches of a high pass filter whose cut-off frequency is determined in dependence on a measure noise level (See abstract). The prior art or combination thereof fails to disclose or make obvious a low pass cut-off frequency decreases as the high pass cut-off frequency increases. Therefore the prior art fails to disclose or make obvious a sound reproduction system as claimed.

Claims 3-10 are allowed due to dependency on claim 1.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should

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preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DEVONA E. FAULK whose telephone number is (571)272-7515. The examiner can normally be reached on 8 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Devona E. Faulk/
Examiner, Art Unit 2614

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